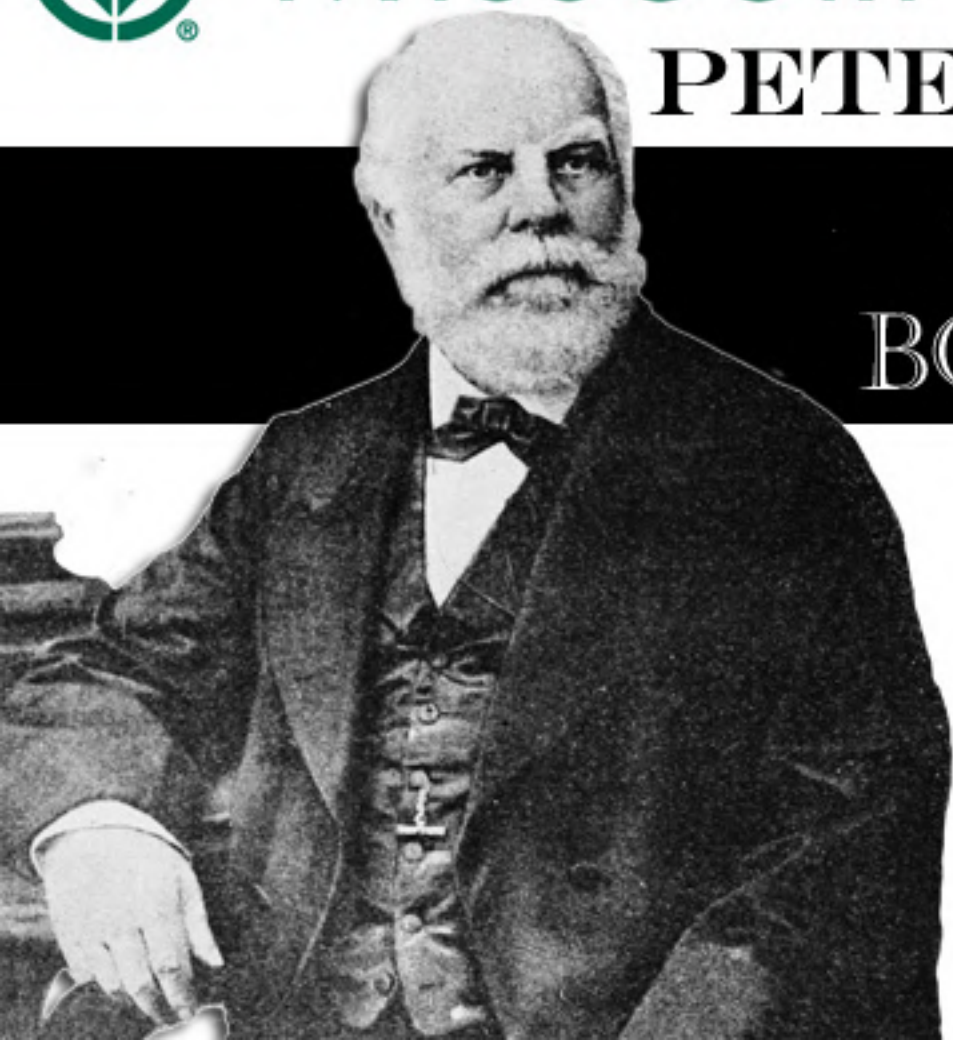


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GEORGE ENGELMANN  
BOTANICAL NOTEBOOKS



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Rec'd March 15'  
Apr — 21

BOTANIC GARDEN, CAMBRIDGE, MASS.

Mar. 21 1875

My dear Dr. Engelman,

Thanks for notes on Euphorbias. Have no intention to publish anything about them, but when the things are sent in "to be named" am glad to shoulder off onto you such as bother me. It seems that you made a new species for Dr. Parry out of one which I had been satisfied with calling *E. revoluta*, not having looked beyond the outside.

The oaks are a great bother. I find no 1867 Wright, nor is it mentioned in Bot. Mex. Bound. 1866 wr. instead is referred to *Q. oblongifolia*. There is nothing of the original Sitgreave spec<sup>m</sup> in Herb. Wm. I find in the oblongifolia case as follows



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Schott - "San Diego to the Colorado". Fruit &  
in all amounts.

5885

Parry - "Mts. East of San Diego" - (Mex. Bond.)

Foliage only. "Acorns in cabinet."

665 Wright. "*Q. grisea*, *diabum*." In fruit

all very evidently the same  
thing, the last almost enough like  
the Sitgreave figure to have been  
the original. <sup>in</sup> leaves all entire.

Pedicles 2-6" long.

1466 W. is not in herb. Torrey, but in

herb. Gray labelled in Torrey; handwriting

"*Q. <sup>Monticola</sup> grisea*, *diabum*." - consisting of four

specimens numbered 137, 165, 300 + 435,

of which 300 has decidedly toothed  
leaves.

As to *Q. Emoryi* there is the  
original specimen with the  
detached fruit exactly as fig.

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and in Emory's Report. — acorn small  
and cup somewhat tubercled & tomentose  
— pubescent. I see no reason to doubt  
that they belong with the foliage.  
Nearly similar is Bigelow, Mex. Bond.  
"near the mouth of the Rio", fruit sessile  
or on pedicels 2-3" long.

There is  
Bigelow, Mex. Bond., "gravelly hills on  
the Simpio", the leaves a little more  
deeply cinnate, acorns similar  
but cups not tubercled, the scales being  
flatter & thinner, sessile.

which agrees to connect with 1860  
Wright & Q. hastata, Liebm., in which  
the scales are still thinner and fruit mostly  
sessile, sometimes pedicelled, as appears  
on the same specimen in herb. Gray.

Under 664 Wright there are two forms in  
herb. Gray, one which is apparently the genuine  
Emoryi, the other with broader leaves.



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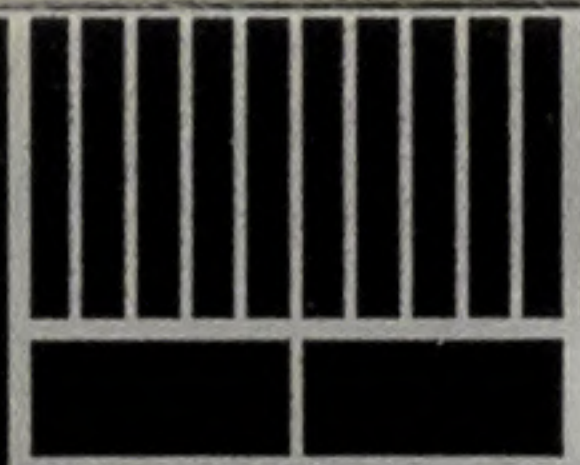
~~densely~~ lobed, the lobes sharply dentate,  
the larger cups densely white-tomentose,  
the acorn broader. This last form  
is the only one found in herb. Torr. at  
664 Wright, labeled Q. pungens, Liebm.

It is probably the same as  
Bigelow, Mex. Bound. "Between the San  
Pedro & Howard's Springs, Western Texas",  
& Woodhouse, Sitgr. Exp. "New Mexico",  
both labeled Q. pungens, by Dr. Torr.

But if you are going to do  
the oaks you ought to have  
the material before your own  
eyes, and not trust to mine.

Yours Very Truly

Samuel Watson



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Rec<sup>d</sup> Nov 4<sup>th</sup>  
Am — 11

Vallejo, California  
Oct. 27, 1874.

Dr. Geo. Engelmann,  
St. Louis, Mo.

My Dear Doctor;

I was up  
on the Sierra Nevada, a week or two ago,  
and got a couple of pretty blue gentians  
and ~~and~~ another couple of Callitriches for  
you. You will find them in the  
little parcel which I mail here-  
with; also a number of other plants  
which you can perhaps give me the  
names of. The numbers are those  
which any Californian plants will  
bear as distributed. Dr. Gray tells  
me he has sent you specimens of the  
minute yellow-flowered gentian which  
I sent him, which appears to be yet  
undescribed, as I infer from Dr. Gray.



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About the Callitriches - No 445  
 was the exclusive tenant of a little  
 sink or pond of clear stagnant water  
 in a swampy meadow. 446. after the  
 same manner exclusively occupied a  
 pond of about the same size, not more  
 than ten feet from the other. This  
 I thought very interesting, because the  
 plants are apparently of two quite  
 distinct species, the latter having  
~~at~~ its submersed leaves ovate, or  
 oblong three-nerved, and the former  
 having them all linear.

The Cuscutas I trust I have rightly  
 identified from your monograph.

Oaks - The one I told you about  
 with drooping branches is plainly  
*Q. lobata*, Wei. according to the figure  
 in Bot. Wilkes &c. - my No. 367.

This is what I described to you as a  
 white oak with drooping branches.

Those shoots of this years growth are on  
 some trees four and five feet long!



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Good old trees with trunks destitute  
of branches for twenty and thirty feet,  
yet have their branches sweeping the  
ground, and I have seen younger  
trees which, as to form of head, had  
just the appearance of weeping willows.

No. 342, is a closely allied species *Q. Douglasii*  
possibly a variety only, a smaller tree,  
its new shoots are erect or horizontal -  
not pendulous, ~~and~~ because not so long -  
I send you the full length of them.

The tree has nothing of the drooping  
aspect of the other *Q. Chrysolepis*.  
No. 421 in its commonest form is a  
neat little bush of the Sierras having  
the aspect of a *Vaccinium*. I suppose  
it is *Quercus vacciniifolia*, Hook. but have  
no means of identifying it.

The trip to Lake County where so many  
bushy forms grow, is expensive, and  
I decided to wait and go twice next  
year getting flowers first: marking the  
bushes, and then getting fruiting



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specimens on a second journey, which  
 should be made I think in early October.  
 In the region where these grow I got  
 four new species of plants; a *Senecio*  
 & *Collinsia*, an *Aceratis*, and a  
*Brodiaea*. May be then for some of  
 the oaks will be new to you, if I  
 ever get them. But I will surely  
 give that section a more thorough  
 going over next year.

I hope you had a splendid time in  
 Colorado. You are of course home  
 again by this time.

If you can give me names for the  
~~undetermined~~ undetermined oaks and *Cathartes*  
*Gentians* &c. I shall be greatly obliged.

As Ever Yours

E. L. Greene.

P.S. Juncos 369 - I find nothing like  
 it in my set of the *Herb. Normale*.

You will find my photograph in the package.

If you can spare me one of yourself, please  
 put it in your next letter & oblige,

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Rec July 11<sup>th</sup>

Columbus O. June 9<sup>th</sup> 76.

Dr G. Engelmann St Louis.

My dear Sir. **Fossil Oaks**

I am obliged to you for sending your pamphlets to Saporta. If you write him please write in french as he as he does not read english easily. — Talking the section of the Black Oaks as you fix it in your memoir B melanobalanus, a good many species of tertiary Oaks described by European authors are referable to it. As limited by Gray for *Q. thicifolia*, *folcata*, *Coccinea rubra* & *spiculata*, few species appear referable to it; one however *Q. angustiloba* Al. Br. is in Europe lower miocene and found here in the lower Eocene, close above the Cretaceous. Nobody can know better than yourself how hazardous it is to rely on definition of oak species from mere leaves and from the 160 species described as yet from the Cretaceous and the Tertiary two only are known by the fruits. The oldest type is that of the Chestnut oaks, represented in the Cretaceous. From the living species eight have been



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recognized as found in the *Q. Virens*:

*Q. pyrenaica*, *Q. roburata*, *Q. apennina*  
*Q. sessiliflora*, *Q. curvis*, *Q. brutia* & *Q. Hey-*  
*ra greaca* from Europe. I have found leaves  
 of *Q. Virens* in the phloem of the Mississippi.

Very truly yours

A. Lesquereux

Leo Lesquereux

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6 his bag or I understand.  
- stand! I hope the  
pressed sps of Hybrid  
will reach you un-  
-hurt as I wish them  
for you to keep & com-  
-pare. Let me know.

My dear Mr. I am  
heartily ashamed to  
send you this which  
a month ago I had  
hoped to give you  
"notes" - but as I  
said ~~for some time~~

of distractions have  
prevented! When I'm  
in a better humor  
& things run in good  
smooth I'll try & do  
better - Meanwhile  
thank you & believe  
me most gratefully  
Yours  
J. M. ~~Mc~~



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3 ~~XXXX~~ then saw but one sp. form.  
- abt from a very luxuriant  
young shoot. It was I  
think later in the season  
than this date. The bud  
I examined ~~was~~ this year  
quite young but I failed  
to observe it in any of  
them. I am inclined to think  
it was a new sport.

---

Yes! There is a great  
difference in the flowering  
time of oaks <sup>all</sup> but ~~some~~  
~~of the~~ ~~off~~ of one species  
do not flower at the same  
time - some are lagging.

---

The earliest bloomer <sup>here</sup> is  
without any doubt Falcata.  
Next Callicarpa. & perhaps  
at the same time or a  
little later Agave. (I  
should have placed Cinerea <sup>with</sup>



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4 falcata. You ask if it  
was not very early - not a bit  
earlier than falcata - but  
it was not so much advanced,  
it grows just on edge of cove  
its roots but perhaps by  
salt water & the percolation  
of fresh springs running into  
cove. I wonder if it be truly  
a hybrid. I sent a sp of  
it to Mr. Canby & he sent  
a leaf to just like it from  
a tree where such hybridization  
is impossible!

with Catesbae bloom Sinuata  
- later Cinerea, then the  
last hybrid of Catesbae & laevis.

Now at this date (with  
also a few lappas Aquatica)  
6 Campanula. 7 The larger of  
8 Humilis & lathy Stellata  
9 & Virens - Virens last  
10 Alba hardly in bloom yet.



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Some exceptions also be found  
among the species - but the  
above is the order for this.  
Seal or at any rate.

Most of the trees of laurifolia  
are now in brightest green  
& blooming, but some have  
not yet dropped their leaves,  
& not yet blooming as yet.  
See or just commencing.  
Some therefore are really  
behind Visens - a few  
of which (but only a few  
bees) have lost their leaves.  
This winter laurifolia  
has acted almost like an  
evergreen. In one or two  
instances agave has held  
its leaves partly.

I fear the reason why the  
she was so much  
marked was because  
mail box left open



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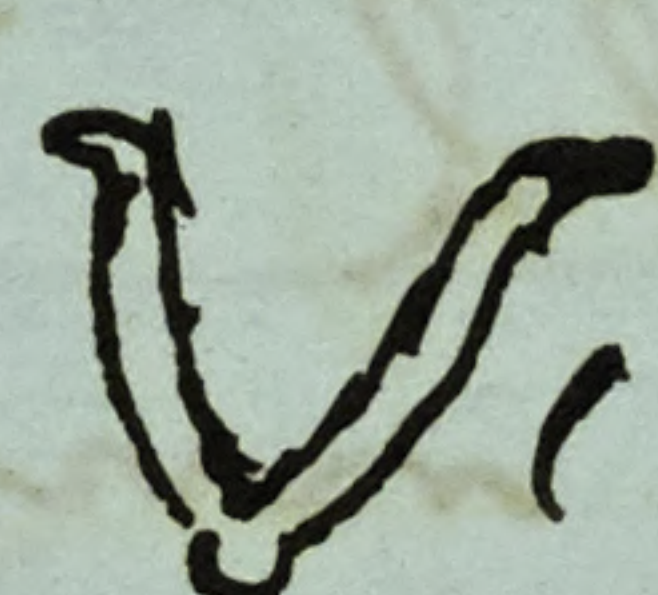

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The parent ~~washed~~ <sup>have been marked</sup> ~~was unmarked~~ <sup>but 7/74 on will recognize</sup> ~~at once after having collected~~ <sup>shs.</sup>  
My *Lobelia* - I ~~united~~ <sup>united</sup>  
them ~~by~~, lest I be prevented  
on mailing. At the proper time  
this spring I commenced to make  
examinations. Thinking I might  
assist you, but have been pre-  
vented since by various dis-  
-tractions - "Worriments" & c up  
to the present. ~~the~~

~~the~~ I copy now  
from notes of 23 mch.  
Falcata. at first  - later  
, there being a slight  
turning down of upper part of  
leaf.

Aquatica. At first  quickly  
thus  - slightly turned  
down - if any.

Hybrid of *Catesb* & *laurefol*.

 - not turned down  
leaves somewhat twisted  
the lower ~~are~~.



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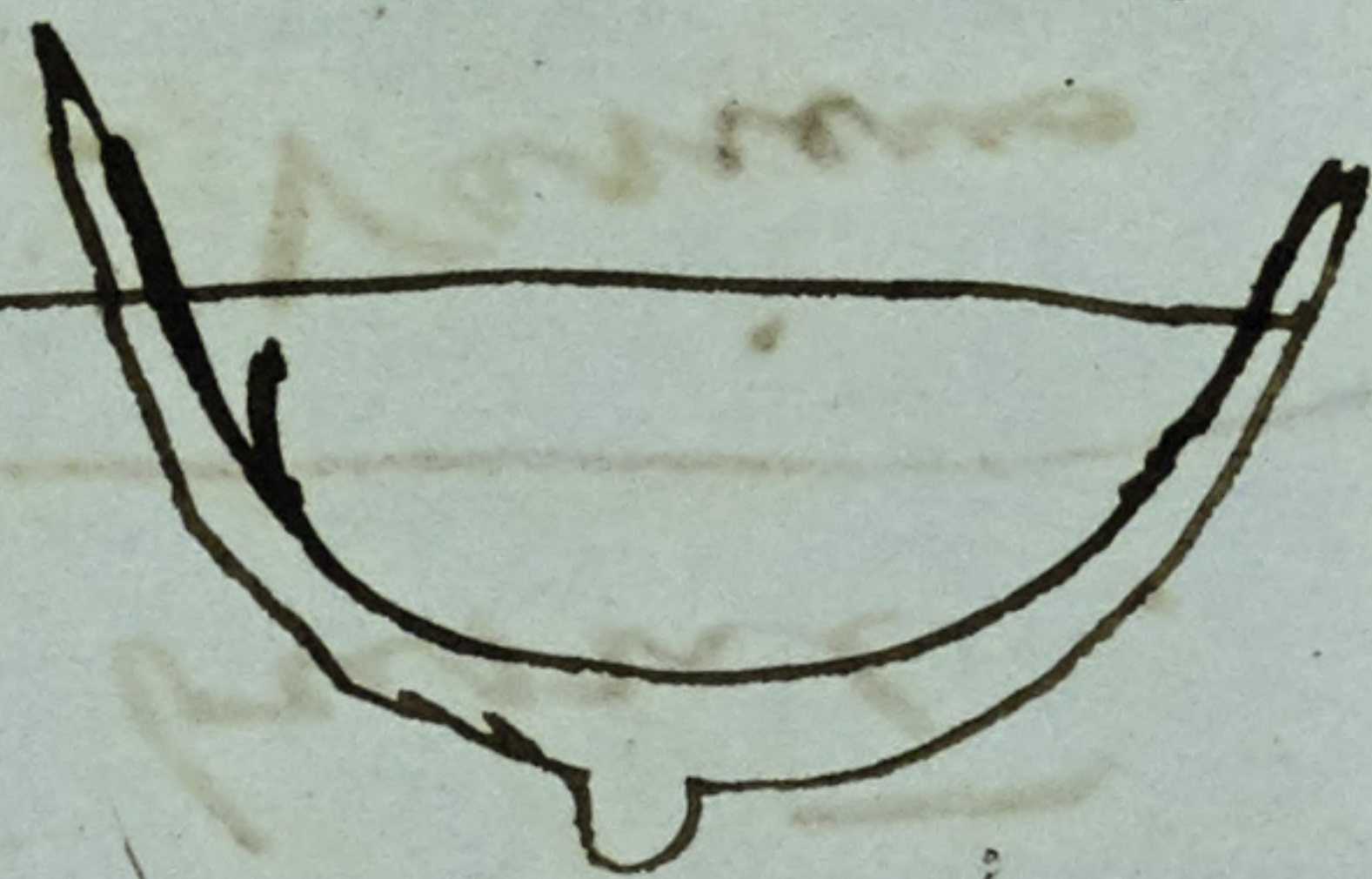
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Cinerea Catesb. (Sinuata)

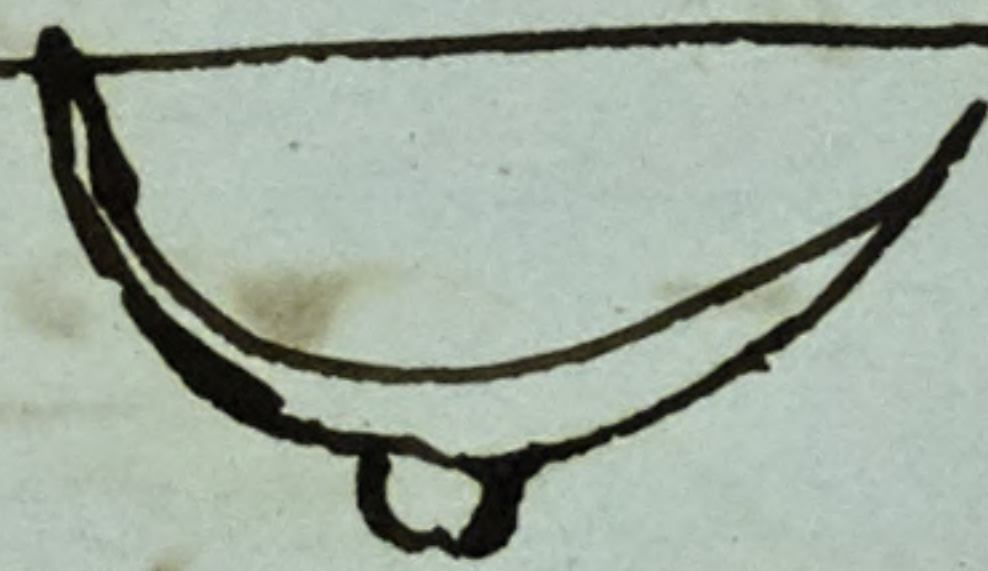
The same as above - The red  
bordering of some young leaves making  
them look as if turned back - but  
not so.

Catesbaei .  - quickly  
not turned back.



Cinerea falcata - too late  
~~at~~ for buds when I examined  
the tree.

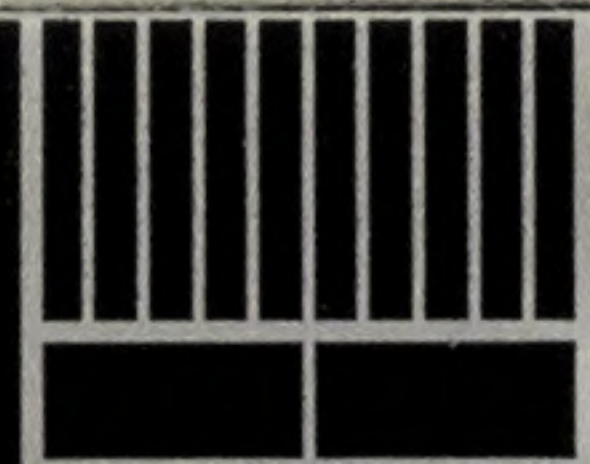
Cinerea



Falcata Therefore is the  
only one the edges of whose  
leaf is turned back - but  
not at all rolled.

I do not remember how this  
corresponds with what I saw  
last spring or I can't lay my  
hand on any notes then, but  
you may. I looked in vain  
for that peculiar but con-  
-dition you observed last yr  
in Catesbaei, I think you

X X X



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#1. Laurifolia, - <sup>11th Apr</sup> ~~The~~ <sup>11 April 1877</sup> ~~the~~ <sup>Revised April 17<sup>th</sup> or 23<sup>rd</sup></sup>  
approaching Aquatica, sp<sup>s</sup> of  
wh<sup>ch</sup> I sent you. Leaves not yet  
dropped - no flowers yet, or just  
appearing as you see.

---

II. Pumila - backward as you  
see. The sps in full flower are  
from the tree 8-10 feet high  
~~with~~ a section of wh<sup>ch</sup> I once sent  
you long ago -

---

III. Laurifolia - true, but  
from young trees - 8-15 feet  
high.

---

IV. Aquatica - flowers &c from  
lower branches of tree 20-30  
feet high.

---

V. Two diff<sup>t</sup> forms of Myrtifolia  
- plucked some days ago - no  
fls this year (?) pine land burnt.

---

III + Laurifolia again - various  
sp<sup>s</sup> from large trees.

---

III + Laurifolia - large tree lower  
limbs - in bloom.



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III. *Laurifolia* - under large  
tree - knocked off by hail  
storm night of the

5872

VI. *Obtusiloba* - from dwarf  
bushes - if it be a dwarf!

VI. *Obtusiloba* - knocked off  
hail *Alba*

VII. *Alba*.

VIII. Young plants of *L. falcata*?  
under old tree of same - with  
Copper Florida - "When dogwood's  
white, Durni will bite"!

IX. *Virens* -

X. Piece containing preserved  
sp. of last hybrid - ~~*Laurifolia*~~  
*Catesbaei*, *Laurifolia*  
*linearis-falcata*  
- also larger leaves of the  
same knocked off by hail.

On evening of 8th between 7-8 P.M.  
we had a severe hail storm knocking off  
half or 2/3 fruit & injuring vegetables  
terribly.



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